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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,084	10/12/2001	G. Michael Uhler	MIPS:0140.00US	1919
23669	7590	06/22/2004	EXAMINER	
HUFFMAN LAW GROUP, P.C. 1832 N. CASCADE AVE. COLORADO SPRINGS, CO 80907-7449			COLEMAN, ERIC	
			ART UNIT	PAPER NUMBER
			2183	

DATE MAILED: 06/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/977,084

Applicant(s)

UHLER, G. MICHAEL

Examiner

Eric Coleman

Art Unit

2183

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-13 and 31-33 is/are allowed.
- 6) ☒ Claim(s) 14, 17, 18, 20, 23, 26, 27, 28 and 30 is/are rejected.
- 7) ☒ Claim(s) 15, 16, 19, 21, 22, 24, 25 and 29 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 14,17,18,20,23,26,27,28,30 are rejected under 35 U.S.C. 102(a) as being anticipated by Maupin (patent No. 6,154,832, submitted by applicant).

Maupin taught the invention as claimed including a data processing ("DP") system comprising:

- a) General purpose (non-interrupt) register set (e.g., see col. 2, lines 31-39);
- b) Plurality of shadow register sets each having a plurality of registers that are addressable by the instructions (e.g., see col. 2, lines 31-39 and col. 6, lines 3-41);
- c) Shadow set mapping logic, coupled to the general purpose register set and the plurality of shadow register sets, for selecting one of the plurality of shadow register sets to be addressable by the instructions upon receipt of one of the plurality of interrupts (e.g., see col., 5, line 45-col. 6, line 41).

As per claims 17,18,20, 30 Maupin also taught a vector generator coupled to the shadow set mapping logic for receiving the interrupts and for each of the interrupts selecting a corresponding one of the plurality of interrupt routines using interrupt vector corresponding to the interrupt routine (e.g., see col. 5, line 45-col. 6, line 65).

As to the selecting of register sets using exception vectors (claims 20,23,26,27) Maupin taught the vector selecting register set (selecting between at least three register sets) using the pointer stored in the programmable task ID registers that correspond to exception routines (e.g., see col. 5, line 56-col. 6, line 28). As per claim 28 where the elements of the system are claims as program code, the Maupin implementation provides an equivalent for the claimed invention as detailed above.

Allowable Subject Matter

Claims 15,16,19,21,22,24,25,29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 1-13, and 31-33 are allowed.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Erramoun (patent No. 5,603,035) disclosed a programmable interrupt controller, interrupt system and interrupt control process (e.g., see abstract).

Nishimura (patent No. 6,223,279) disclosed a microcomputer having a dedicated address bus and dedicated data bus for transferring register bank data to and from an on-line ram (e.g., see abstract).

Samra (patent No. 6,470,435) disclosed a dual state rename recovery using register usage (e.g., see abstract).

Kikinis (patent No. 5,797,036) disclosed a system that prepares a master map portraying location of devices relative to bus interface circuits (e.g., see abstract).

Koino (patent No. 5,615,348) disclosed a microprocessor with a register bank architecture (e.g., see abstract).

Thomas (patent No. 5,386,563) disclosed a register substitution during exception processing (e.g., see abstract).

Fairchild (patent no. 4,296,470) disclosed a link register storage and restore system for use in an instruction pre-fetch microprocessor interrupt system (e.g., see abstract).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Coleman whose telephone number is (703) 305-9674. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Chan can be reached on (703) 305-9712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


ERIC COLEMAN
PRIMARY EXAMINER

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